

Notice of Allowability

Application No.

10/617,386

Examiner

Tom V. Sheng

Applicant(s)

NAKANO ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 5/2/2007.
2. ☒ The allowed claim(s) is/are 1-3, 5-8 and 10-19.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Michael J. Shea on 7/18/2007.

The application has been amended as follows:

Claim 1,

line 7, before "refresh rate", insert --second --,

line 8, before, "refresh rate", insert --first --,

line 10, after "for refreshing", insert -- at the first refresh rate--,

line 12, after "for refreshing", insert -- at the second refresh rate the--, and

line 14, replace "sections" with --section--.

Claim 5,

line 7, before "refresh rate", insert --second --,

line 8, before, "refresh rate", insert --first --,

line 10, after "for refreshing", insert -- at the first refresh rate--,

line 12, after "for refreshing", insert -- at the second refresh rate the--.

Claim 6,

line 7, replace "a refresh rate different from a refresh rate" with -- a second refresh rate different from a first refresh rate--,

line 9, after "refreshing", insert -- at the first refresh rate the--,

line 10, after "refreshing", insert -- at the second refresh rate the--.

Claim 10,

line 7, replace "a refresh rate different from a refresh rate" with -- a second refresh rate different from a first refresh rate--,

line 9, after "refreshing", insert -- at the first refresh rate the--,

line 10, after "refreshing", insert -- at the second refresh rate the--.

2. Claims 1-3, 5-8 and 10-19 are allowed.

The following is an examiner's statement of reasons for allowance:

The invention is directed to a display device provided with a first memory for a full display and a second memory for a partial display. A control section of the display device provides the data from the first memory to the display at a first refresh rate and the data from the second memory to a part of the display at a second refresh rate. The partial display at the second refresh rate is greater than the full display at the first refresh rate.

Independent claims 1, 5, 6, 10 and 18 identify, inter alia, the uniquely distinct feature of a display being refreshed separately from respective memories of a full display and a partial display at respective refresh rates, as claimed. With this, the display device can advantageously provide a partial display within a full display at different positions without the need to update the partial display memory. That is, the respective memories are each updated when a corresponding image changes.

De Lange (US 5,719,593) teaches a display device that provides both background and foreground images. A frame buffer for display stores both the background/full and foreground/partial images independently. The images are refreshed independently at the frame memory. The "refreshing" of De Lange is at the frame memory while the display refreshing of the application is at the display from respective memories.

Nakamura (JP 10-049058) teaches a display device that synthesizes a new picture for display based on an original picture at a storage area and a "wrong" picture part at another storage area. This is to provide for a video game even with a small memory capacity. Nakamura does not teach about separate refreshing of display from respective memories. Moreover, there is no motivation to combine with De Lange's invention and even doing so does not mean separate refreshing and refresh rate at the display from respective memories.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom V. Sheng whose telephone number is (571) 272-7684. The examiner can normally be reached on 9:00am - 6:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tom Sheng

AMR A. AWAD
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read "Amr A. Awad", written over a large, sweeping horizontal line that extends to the right.